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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/512,059

06/16/2006

Smita Patel

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EXAMINER

SCHLENTZ, NATHAN W

ART UNIT

PAPER NUMBER

1616

NOTIFICATION DATE

DELIVERY MODE

03/24/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com  
offserv@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/512,059	<b>Applicant(s)</b> PATEL ET AL.	
	<b>Examiner</b> Nathan W. Schlientz	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 9-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 9-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/21/04</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

Claims 1-3, 5 and 9-36 are pending in the present application and examined herein on the merits for patentability. No claim is allowed at this time.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-3, 9-11, 15-22 and 26-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites, "one or more active compounds *directed against animal pests*". However, it is unclear what is intended by "directed against". The instant specification states, "The term 'active compounds directed against animal pests' encompasses all compounds whose effect on animal pests can be either direct, for example as a result of inactivation and/or destruction within the sense of combating, or indirect, for example as a result of disorientation and/or population-reducing effects." However, this definition is itself indefinite. It is unclear what compounds are considered to have a direct or indirect effect on animal pests. It is not clear what type of an effect is intended.

Art Unit: 1616

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 1-3, 5 and 9-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Mulla (US 3,846,557), Lloyd et al. (Management of Fruit flies in the Pacific – ACIAR Proceedings, 1997) and Baumgaertner (DE 197 49 683 A1), as evidenced by the instant specification.

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

Mulla et al. teach a bait formulation utilized for controlling synanthropic flies. Mulla et al. teach that a primary object is to provide a dry formulation which can be mixed with an insecticide and which will attract synanthropic flies for along time (col. 2, ln. 6-9), wherein the bait formulation comprises a dry, fermented protein source (col. 2, ln. 13-16). Mulla et al. further teach that any protein material can be utilized and,

Art Unit: 1616

specifically, the proteins which they have utilized successfully include autolyzed yeast (col. 4, ln. 51-55). The protein material may be added to a sorptive material, such as sodium bentonite and diatomaceous earth, which totally absorbs the water (col. 7, ln. 45 to col. 8, ln. 12).

Lloyd et al. teach brewery waste yeast being converted to a protein bait for fruit fly control (Abstract). Lloyd et al. teach that in Australia, an autolyzed protein bait, a by-product of yeast manufacture for the food industry, is widely used for fruit fly control (pg. 192, right column, 1st paragraph). Lloyd et al. further teach that yeast autolysate generally refers to products in which yeast cells have been disrupted by some process other than acid hydrolysis and released cell proteins have been degraded enzymatically. Yeast protein autolysates do not have a high salt content and are less likely to cause phytotoxic effects when applied to foliage as a fruit fly bait. Furthermore, for yeast autolysates to be used as protein baits, it is not necessary to remove all of the cell wall debris and the process may be much simpler than those employed in the preparation of yeast extract for the food industry (whole paragraph bridging pg. 192 to 193). Lloyd et al. teach autolyzing brewery waste yeast, prepared by concentration by heating followed by proteolysis with the enzyme papain and preservation with potassium sorbate (pg. 196, left column, 2<sup>nd</sup> paragraph).

Baumgaertner teaches an insecticide comprising a synthetic silicic acid, Aerosil 200 Hydrophil, at least one baiting substance, such as yeast powder or protein, and a preservative (methylparaben) (Abstract). Baumgaertner further teaches that silicic acid possesses an insecticidal effect (pg. 1, ln. 15).

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Mulla et al. do not teach utilizing a synthetic silicic acid in their bait preparations; Lloyd et al. do not teach addition of synthetic silicic acids to their protein bait preparations; and Baumgaertner do not specifically teach the yeast powder to be autolyzed yeast.

However, Mulla et al., Lloyd et al. and Baumgaertner combined clearly teach that protein autolysates are suitable for use in insect bait preparations, and synthetic silicic acids are also suitable for use in bait preparations and provide an insecticidal effect.

The instant specification teaches protein autolysates are derived from yeasts of the species *Saccharomyces cerevisiae* and *Saccharomyces carisbergensis*, such as liquid <sup>®</sup>Pinnacle protein autolysate (obtained from brewery yeast residues after fermenting with papain enzyme, EC 3.4.4.10; Mauri Yeast Australia Ltd., Toowoomba, Queensland, Australia) and/or pulverulent <sup>®</sup>SPA400 protein autolysate (obtained from brewery yeast residues; Halcyon Proteins Pty Ltd., Melbourne, Australia) (pg. 6, ln. 2-8). The instant specification further teaches that pyrogenic silicic acids include <sup>®</sup>Areosil 200 (pg. 6, ln. 9-18).

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to use protein autolysates from Brewery waste yeast

Art Unit: 1616

(*Saccharomyces*) in combination with synthetic silicic acids (<sup>®</sup>Aerosil 200) and an insecticide to control synanthropic flies, such as fruit flies.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan W. Schlientz whose telephone number is 571-272-9924. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NWS

/Johann R. Richter/  
Supervisory Patent Examiner, Art Unit 1616